I0 24830

Fw: lab report for bobcats
Robert Miller to: Norman Spurling 01/07/2013 10:50 AM

From: Robert Miller/DC/USEPA/US
To: Norman Spurling/DC/USEPA/US@EPA

Hi Norm,

Below are two lab reports for bobcats from California.

Bob

Robert A. Miller
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----- Forwarded by Robert Miller/DC/USEPA/US on 01/07/2013 10:48 AM -----

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Date: 12/21/2012 01:43 PM
Subject: lab report for bobcats

Good morning, Please find attached a lab report for 2 bobcats. Please let me know if you have any questions or need a hard copy.

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DEPARTMENT OF FISH AND GAME
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Lab No: P-2674
Necropsy N12-145, N12-152
CAHFS D1213119, D1213120

Date: September 8 and 15, 2012
Species: Bobcats (2)
Listing Status: no special status

To: **Cathy Fisher**
Santa Barbara Agricultural Commissioner

Report Date: December 20, 2012

Remarks
Two bobcats from Santa Barbara County (separate incidents) were necropsied and tested for anticoagulant rodenticide exposure.

Background
Two bobcats, *Lynx rufus*, were brought to the Animal Rescue Team in Santa Barbara County and died soon after admission. The first, a female kitten, was found on Hope Ranch on September 8 and died quickly after admission. The second, an adult male, was admitted on September 14, 2012, and died the next day. This bobcat was found near the highway and appeared to have mange. The two bobcat carcasses were sent to the DFG Wildlife Investigations Laboratory for necropsy examination and testing. -001 -002

RESULTS OF EXAMINATION

Both bobcats were necropsied at the WIL on November 27, 2012. The kitten was found to be emaciated but without any signs of external trauma. There was no unexplained bleeding in the body cavities or subdermally (under the skin). The adult male bobcat was found to have mange and tissue trauma consistent with a vehicle strike. A liver sample from each bobcat was submitted to the California Animal Health and Food Safety Laboratory for anticoagulant rodenticide analysis. Additionally, tissues were examined microscopically by a veterinary pathologist: findings for the adult male were consistent with notodedric mange and trauma, while no significant histological findings were found for the kitten. Anticoagulant rodenticides were detected in the liver tissue of both animals (Table 1).

Anticoagulants disrupt normal blood-clotting mechanisms and cause mortality due to excessive internal bleeding. Signs of anticoagulant toxicosis include subdermal bruising and excess blood in the body cavities. Exposure to predatory and scavenging wildlife has been well documented and is the result of secondary exposure through contaminated prey items. Anticoagulant poisoning is diagnosed when signs of anticoagulant toxicosis, such as unexplained bleeding, are present and anticoagulants are present in liver tissue. Although definitive signs of anticoagulant poisoning were not observed in the kitten, there were

moderately high concentrations of two anticoagulant rodenticide compounds in the liver which may or may not have contributed to the death of this bobcat.

Table 1. Liver residues of anticoagulant rodenticides (ng/g, wet weight).

Anticoagulant Rodenticide	Adult Male	Female Kitten	Reporting Limit
Brodifacoum	ND[1]	95	10
Bromadiolone	Trace	390	50
Chlorophacinone	ND	ND	250
Diphacinone	Trace	Trace	250
Coumatetralyl	ND	ND	250
Warfarin	ND	ND	250

[1]ND = Not detected at or above reporting limit. -002 -001

WILDLIFE INVESTIGATIONS LABORATORY

Stella McMillin

Stella McMillin, Environmental Scientist
Wildlife Investigations Laboratory

Approved

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